

Volumetric and Gravimetric

General Information

The FlexWall® Plus [FW80/2](#) feeder is ideal for poor or difficult flowing bulk ingredients. The feeder has the following main components: a stainless steel trapezoidal housing, a flexible polyurethane trough with a large cross-section, external massage paddles with separate drive, a screw, a screw tube, 3 phase motor and a trapezoidal extension hopper with volumes of 100 dm³ (3.53 cuft) or 200 dm³ (7.06 cuft).

The shape of the trough and the external adjustable amplitude massage paddles work together to provide consistent screw filling and mass flow without ingredient deterioration. The FW80/2 features a separate paddle drive to allow paddle speed adjustment for difficult flowing ingredients.

The [FW80/2](#) features a hinged motor for screw change from the rear.

The FlexWall® Plus is easily disassembled for wet or dry cleaning as the polyurethane hopper that is attached to the housing is easily removed. Moreover, the [compact trapezoidal shape](#) allows up to 6 feeders to be arranged around a central feed point. Service can be from the front or back.

The gravimetric version includes the analog weighing system [MS6](#), or the digital weighing system [MD6](#) (for highest measurement accuracy), featuring a high resolution robust digital load cell with serial data transmission and advanced filtering technology.

The unit conforms to CE directives.



Model Specification

Screw drive	hinged
Drive power	0.37 kW (0.5 HP)
Screw speed	198 min ⁻¹
Screw speed optional	346 min ⁻¹
Massage paddles	Yes
Separate paddle drive	Yes
Drive power	0.37 kW (0.5 HP)



Control modules

Control and speed modules are offered either mounted onto the feeder ([Congrav® CM-E](#)) or are available for mounting in a separate control panel ([Congrav® CB-E](#) or [Congrav® CB-S](#)).

Controls can communicate directly to most host/ PLC systems or to Brabender Technologie Congrav® Operator Interfaces.

Technical Drawings and Dimensions

	volumetric feeders		
		Control module CB	Control module CM
100 dm ³ (3.53 cuft) hopper	FW80/2-100	DDW-M6-FW80/2-100	DDW-M6-FW80/2-100 CM
200 dm ³ (7.06 cuft) hopper	FW80/2-200	DDW-M6-FW80/2-200	DDW-M6-FW80/2-200 CM



FlexWall® Plus

FW80/2



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Available Screw Sizes and Feed Rates

Screw type	Designation Ø / p [mm]	Tube designation	Tube dia. [mm]	Max. speed [min ⁻¹]	Max. feed rate * [dm ³ /h]	Max. feed rate* [cuft/hr]
Spiral screw (S) (TA= with trough activation)	S 43/27 (TA)	443	48.3x2.0	198 (346) / 100Hz	380 (663)	13.4 (23.4)
	S 43/42 (TA)	443	48.3x2.0	198 (346) / 100Hz	635 (1110)	22.4 (39.2)
	S 52/39 (TA)	563	60.3x2.0	198 (346) / 100Hz	821 (1433)	29 (50.6)
	S 52/62 (TA)	563	60.3x2.0	198 (346) / 100Hz	1391 (2431)	49.1 (85.9)
	S 67/45	715	76.1x2.3	198 (346) / 100Hz	1665 (2911)	58.8 (102.8)
	S 67/71	715	76.1x2.3	198 (346) / 100Hz	2745 (4796)	96.9 (169.4)
	S 79/45	843	88.9x2.3	198 (346) / 100Hz	2357 (4120)	83.2 (145.5)
S 79/82	843	88.9x2.3	198 (346) / 100Hz	4499 (7863)	158.9 (277.7)	
Spiral screw (S) for granules	S 43/27	563	60.3x2.0	198 (346) / 100Hz	521 (910)	18.4 (32.1)
	S 43/42	563	60.3x2.0	198 (346) / 100Hz	863 (1509)	30.5 (53.3)
	S 52/39	715	76.1x2.3	198 (346) / 100Hz	1191 (2081)	42.1 (73.5)
	S 52/62	715	76.1x2.3	198 (346) / 100Hz	2003 (3499)	70.7 (123.6)
	S 67/45	843	88.9x2.3	198 (346) / 100Hz	2155 (3766)	76.1 (133)
	S 67/71	843	88.9x2.3	198 (346) / 100Hz	3537 (6180)	124.9 (218.3)
Blade Screw (B) Stainless Steel	B 40/32	443	48.3x2.0	198 (346) / 100Hz	311 (543)	11 (19.2)
	B 40/46	443	48.3x2.0	198 (346) / 100Hz	465 (813)	16.4 (28.7)
Blade Screw (B) Polyurethan	B 50/45 **	563	60.3x2.0	198 (346) / 100Hz	797 (1393)	28.1 (49.2)
	B 50/70 **	563	60.3x2.0	198 (346) / 100Hz	1279 (2234)	45.2 (78.9)
	B 79/50 **	843	88.9x2.3	198 (346) / 100Hz	2280 (3985)	80.5 (140.7)
	B 79/88 **	843	88.9x2.3	198 (346) / 100Hz	4193 (7328)	148.1 (258.8)
Fiber screw (F)	F 5230/45-K20	563	60.3x2.0	198 (346) / 100Hz	579 (***)	20.4 (***)
	F 5245/60-K20	563	60.3x2.0	198 (346) / 100Hz	898 (***)	31.7 (***)
	F 7945/60-K39	843	88.9x2.3	198 (346) / 100Hz	1846 (***)	65.2 (***)
	F 7945/60-K20	843	88.9x2.3	198 (346) / 100Hz	2282 (***)	80.6 (***)

* Theoretical values at 100% screw filling level and motor speed. Depending on the flow characteristics the screw filling level may decrease to 50%. Further limitations have to be considered for gravimetric feeding, as max. speed should be reduced to allow for bulk density variations.
 **alternatively also available as stainless steel version
 *** Available upon request

[How to read the table of screws](#)

Technical Specification

Ambient temperature:	0°C to +45°C (32°F to 113°F)	* Available options: Conductive or chemically resistant FDA approval polyurethane
Humidity of the air:	up to 85% without condensation	
max. vacuum/pressure:	3 hPa (3 mbar) (1.2 inches of water)	
Product temperature:	0°C to +50°C (32°F to 122°F)	
max. bulk density (volumetric):	1.5 kg/dm ³ (94 lb/cuft)	
Max. bulk density (gravimetric):	1.5 kg/dm ³ (94 lb/cuft) with hopper 100dm ³ (3.53 cuft); 1.0 kg/dm ³ (69 lb/cuft) with hopper 200 dm ³ (7.06 cuft)	
Flexible screw trough:	polyurethane, food-proof acc. to LMBG*	
Housing, extension hopper, hopper lid:	1.4301 (304 SS)	
Screws, screw tubes, outlets:	1.4571 (316 SS), 1.4301 (304 SS) or polyurethane, food-proof acc. to LMBG*	
Non-contact components:	Aluminium, plated or painted steel (RAL 7035)	
100 or 200 dm ³ extension hopper	Hopper lid for automatic refilling with vent pipe or manual refilling	** 3 phase motors are designed for a power supply of: 230/400 V, 50 (60) Hz, and for the operation in TT networks, TN networks or networks with earthed neutral conductor. For different networks adaptation measures are necessary.
Screw drive:	0.37 kW (0.5 HP), IP65; ISO class F; TEFC; frequency-controlled	
Paddle drive (FW80/2; FW80/7 only):	0.37 kW (0.5 HP), IP65; ISO class F; TEFC; frequency-controlled	
Power supply:	AC 230/400 V (110VAC/460VAC) - 50Hz** or 266/460 V (230/460VAC) - 60Hz	
Net weighing range MD6:	226 kg (498.2 lb) with hopper 100 dm ³ (3.53 cuft) 214 kg (471.8 lb) with hopper 200 dm ³ (7.06 cuft)	
Net weighing range MS6:	196 kg (432.1 lb) with hopper 100 dm ³ (3.53 cuft) 184 kg (405.6 lb) with hopper 200 dm ³ (7.06 cuft)	

Options and Accessories

- Flexible [inlet and vent connections](#)
- Flexible [outlet connections](#)
- Interchangeable screws and screw tubes
- [BagDumper](#) (for manual refilling)
- [DESTACO clamp fasteners](#) with and without safety switch
- Versions for higher and lower temperatures than standard
- [Explosion-proof executions](#) as per directive 2014/34/EU (ATEX) or NFPA
- FlexWall®Plus with [Hygienic Design \(HD\)](#) as per directive 1935/2004 or FDA
- Screw extension 300 mm (11.81 inches) (not for blade and fiber screws)
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box](#)
- [Filter bag](#) or [JetFilter](#) for vent stub
- [Turntable](#) or [cart mounting](#)
- Pressure compensation [for the outlet](#) and/or the [feeder hopper](#)
- Cleaning and refill systems upon request